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DESCRIPTIONS OF NEW CANADIAN ICHNEUMONIDÆ.

BY E. T. CRESSON, PHILADELPHIA, PA.

1. *BANCHUS FLAVESCENS*.—♂. Pale yellow; a bilobed mark behind antennæ, extending between them downward upon middle of face, band across vertex from eye to eye, covering ocelli, posterior margin of occiput, maxillary palpi, two apical joints of labial palpi, antennæ above, stripe on middle of mesothorax, dilated anteriorly, a stripe on each side over the wings, basal suture of scutellum, base of metathorax, broader laterally, spot on each side of pleura posteriorly, posterior coxæ within, their femora beneath, apex of their tibiæ, and a broad band at base of four basal segments of abdomen, black; antennæ longer than body, slender at tips; scutellum with an acute dusky spine; wings hyaline, faintly yellowish, nervures brown, stigma and costa pale honey-yellow; posterior coxæ and femora stained with ferruginous; abdomen shining, short, apex broad, truncate and compressed. Length five lines.

Hab.—Ottawa, C. W. (Mr. Billings.) Coll. Am. Ent. Soc.

2. *BANCHUS BOREALIS*.—♂. Pale ferruginous, shining; orbits, clypeus, mandibles, palpi, and four anterior legs yellowish; stripe down middle of face, spot beneath eyes, two spots behind antennæ, band across vertex from eye to eye, covering ocelli, posterior margin of occiput, three broad stripes, sometimes only one, on mesothorax, basal sutures of scutellum and metathorax, spot on pleura beneath, posterior coxæ within and at base beneath, line on posterior femora beneath, and a sub-basal fascia, sometimes irregular, on second and following segments of abdomen above, becoming less distinct on apical segments, black; sometimes the pleura is black with a large ferruginous spot on each side; posterior tibiæ dusky at apex; wings yellowish-hyaline, subviolaceous, slightly dusky at apex, nervures brown, stigma and costa honey-yellow; antennæ brown above; scutellum with an acute spine; metathorax rugulose, posterior angles prominent; abdomen smooth and shining, first segment with prominent stigmatic tubercles. Length $5\frac{1}{2}$ lines.

Hab.—Ottawa, (Billings); London, (Saunders). Coll. Am. Ent. Soc.

3. *BANCHUS CANADENSIS*.—♂ ♀. Ferruginous, dark on head and thorax; face except central stripe, front except two black spots behind antennæ, broad posterior orbits, line on collar, two lines on mesothorax dilated anteriorly, tegulæ, line beneath, scutellum, spot on postscutellum, transverse subangular band on metathorax, spot on each side, elongate spot on pleura, four anterior coxæ beneath, trochanters, spot on posterior coxæ behind, four anterior femora in front, their tibiæ and tarsi, basal half of posterior tibiæ, base of their tarsi, and apical margin of abdominal segments, broadest on second and third, yellow; antennæ blackish, pale at base beneath; central dark stripe of mesothorax, sometimes black; scutellum with a short acute tubercle in ♂, scarcely visible in ♀; wings yellowish-hyaline, nervures brown, stigma and costa pale honey-yellow; tips of posterior tibiæ sometimes blackish; abdomen polished, compressed at apex, which is truncate in ♂, pointed in ♀. Length $4\frac{1}{2}$ –5 lines.

Hab.—Ottawa (Billings); London (Saunders). Coll. Am. Ent. Soc.

4. *AROTES AMOENUS*.—♀. Black, shining; face, orbits, broad behind, mouth, broad annulus on antennæ, large mark on each side of prothorax, margins of mesothoracic lobes, tegulæ, spot beneath, scutellums, large trilobed mark at tip of metathorax, a round spot on the flanks, large mark on each side of pleura, indented with black anteriorly, four anterior legs, spot on posterior coxæ above and beneath, their trochanters, tips of their femora, basal third or half of their tibiæ, their tarsi except claws, and a narrow apical fascia on all the abdominal segments, pale yellow or yellowish-white; wings hyaline, the extreme apex fuscous, nervures black, second recurrent nervure not uniting with the transverse cubital nervure; four anterior femora black behind; first abdominal segment with a prominent sub-basal tooth beneath; venter yellowish, the long acute ventral valve blackish; ovipositor longer than body, rufous, sheaths black. Length $6\frac{1}{2}$ – $7\frac{1}{2}$ lines. ♂, of a brighter yellow; antennæ longer than body, yellow, only its basal half above, black; posterior coxæ yellow with a black line above and within, their femora black above, except tips, sometimes only the extreme base of their tibiæ are yellowish; the abdominal fasciæ are broader, and the basal segment has a central yellow stripe more or less abbreviated behind, and sometimes reduced to a sub-basal spot. Length $5\frac{1}{2}$ – $6\frac{1}{2}$ lines.

Hab.—London, (Saunders); Grimsby, (Pettit). Coll. Am. Ent. Soc. This is a handsome and conspicuous species.

5. *AROTES FORMOSUS*.—♂. Differs from *amœnus* by the yellowish markings being much paler and less developed; the antennæ are black at extreme apex both above and beneath, the sides of the thorax are almost entirely black; the superior wings have a fuscous spot at extreme tip, and the second

recurrent nervure unites with the transverse cubital nervure, by which character it may be readily distinguished from *amoenus*. Length $5\frac{1}{2}$ lines.

Hab.—Ottawa, (Billings). Coll. Am. Ent. Soc.

6. *COLEOCENTRUS PETTITI*.—♀. Black, somewhat shining; wings yellowish-hyaline, nervures black, honey-yellow at base, areolet small, triangular, petiolated; legs honey-yellow, coxæ and posterior tibiæ black, posterior tarsi yellow, dusky at base; abdomen broad at apex, which is compressed and shining; ovipositor as long as body. Length $6\frac{1}{2}$ lines.

Hab.—Grimsby, C. W. (Pettit). Coll. Am. Ent. Soc. In this genus the last ventral segment is long and lanceolate, as in *Arotes*, but which has the areolet of anterior wings wanting.

This fine species is respectfully dedicated to Johnson Pettit, Esq., of Grimsby, to whom I am indebted for many specimens of Canadian Hymenoptera.

7. *RHYSSA CANADENSIS*.—♀. Black, shining; anterior orbits, interrupted on each side of antennæ, palpi and tegulae white; antennæ brownish at tip and beneath; mesothorax coarsely transversely rugose; metathorax with a broad, deep, longitudinal channel on the disk; wings hyaline, faintly stained with yellowish, nervures black, pale at base, as well as extreme base of stigma, areolet minute, petiolated, sometimes reduced to a mere point; legs bright honey-yellow, tips of all the tarsi, extreme tips of posterior femora, and base and apex of their tibiæ, fuscous, middle of tibiæ pale; abdomen long, minutely transversely aciculate; ovipositor longer than body, piceous, sheaths black. Length 7–8 lines.

Hab.—Quebec (Couper). Coll. Am. Ent. Soc. Mr. Couper informs me that this insect was found "boring into a pine tree."

8. *EPHIALTES MACER*.—♀. Slender, black, shining, with short, thin, glittering, cinereous pile; cheeks and sides of thorax polished; clypeus reddish; palpi whitish; metathorax with a shallow central channel; tegulae, and sometimes a short line in front, whitish; wings hyaline, beautifully iridescent, nervures brown, areolet triangular; legs honey-yellow, front coxæ, except dusky spot in front, their trochanters, and apex of four posterior trochanters, whitish; tips of posterior femora, their tibiæ and tarsi more or less dusky, the tibiæ more or less pale at middle and within, and sometimes the middle tibiæ and tarsi are varied with dusky, the posterior coxæ in one specimen are dusky behind; abdomen long, cylindrical, surface uneven, densely punctured and somewhat shining, subpubescent, posterior margin of the segments unevenly transversely wrinkled, first segment shorter than second, the second to fifth one-third longer than wide; ovipositor twice, sometimes nearly four times longer than body, very slender, rufous, sheaths

black. Length 4-5 lines; with ovipositor 11-19 lines. ♂ has antennæ brown, pale beneath; legs paler than in ♀, the anterior coxæ and trochanters white, posterior legs more or less obfuscated, base of their tibiæ and of their tarsi white; abdomen with first segment about as long as second, with two longitudinal ridges, most prominent at base. Length $2\frac{1}{2}$ -3 lines.

Hab.—Ottawa (Billings); London (Saunders). Coll. Am. Ent. Soc. This is the smallest and most slender of our North American species.

9. *PERITHOUS PLEURALIS*. — ♀. Black, shining; anterior orbits, basal margin of clypeus, mandibles, palpi, scape beneath, tip of scutellums, spot beneath posterior wing, arched line on tip of metathorax, four anterior coxæ, all the trochanters, anterior legs in front, and posterior margin of abdominal segments, interrupted laterally by a dusky spot, white; scutellum, pleura, sometimes the anterior portion of mesothorax, tibiæ, and posterior coxæ, honey-yellow; antennæ brownish; wings hyaline, iridescent, nervures brown, pale at base, as well as a spot at base of stigma; tibiæ and tarsi whitish, tips of posterior femora, a line on outside of all the tibiæ, encircling the apex of posterior pair, and tips of tarsal joints, blackish; segments of abdomen shining, with a lateral blister-like elevation on each, two basal segments with thick coarse punctures, remainder with sparse punctures; ovipositor longer than body. Length $4\frac{1}{2}$ -6 $\frac{1}{2}$ lines.

Hab.—Grimsby, C.W. (Pettit). Coll. Am. Ent. Soc. Closely resembles the European *P. mediator*, but differs in the ornamentation of the legs.

10. *ARENETRA CANADENSIS*. — ♂. Deep black, densely and coarsely punctured; head, thorax and base of legs, thickly clothed with short black pubescence, most dense on the head; antennæ long, slender; wings hyaline, nervures black, areolet small, triangular, subpetiolate; apex of femora, the tibiæ and tarsi dull testaceous, posterior pair pale fuscous; abdomen narrow, subdepressed, shining at tip, apical margin of third and following segments with a very narrow pale fascia. Length 5-lines.

Hab.—London, C. W. (Saunders). Coll. Am. Ent. Soc. Very closely allied to *A. nigrita*, Walsh, which has the pubescence less dense, and whitish.

11. *LISSONOTA RUFIPES*. — ♀. Black, somewhat shining; legs rufous, the coxæ, trochanters, and posterior tibiæ and tarsi black; middle tibiæ and tarsi sometimes dusky; wings dusky hyaline, iridescent, nervures black, areolet small, petiolated; abdomen shining at tip; ovipositor longer than body; body densely punctured, most sparse on abdomen. Length $4\frac{1}{2}$ lines.

Hab.—Grimsby, C. W. (Pettit). Coll. Am. Ent. Soc.

12. *LISSONOTA FRIGIDA*. — ♀. Black; head and thorax densely punctured, opaque; abdomen shining, delicately punctured, polished at apex; wings dusky hyaline, iridescent, areolet triangular, not petiolated; legs, including

coxae, and abdomen except base of first and the two or three apical segments, rufo-ferruginous; four posterior trochanters and posterior tibiae and tarsi fuscous; ovipositor as long as body. Length $3\frac{1}{2}$ lines.

Hab.—Ottawa (Billings); London (Saunders). Coll. Am. Ent. Soc.

13. *LISSONOTA BRUNNEA*.—♀. Entirely brownish ferruginous, subopaque, four anterior legs paler; body covered with dense punctures; anterior orbits, mouth, and tegulae, yellowish; wings yellowish-hyaline, nervures black, areolet small, petiolated; ovipositor as long as body, rufopiceous. Length $5-5\frac{1}{2}$ lines.

Hab.—Ottawa, C. W. (Billings). Coll. Am. Ent. Soc.

14. *XORIDES VITTIFRONS*.—♀. Black, shining; anterior orbits, face except upper margin, spot on base of mandibles, palpi, line on collar, lateral margin of mesothorax, spot on scutellum, another on post-scutellum, tegulae, and narrow fascia on apical margin of each segment of abdomen, abbreviated laterally on basal segments, white; wings hyaline, nervures black; legs, including coxae, honey-yellow; anterior pair and spot on base of posterior coxae above, yellowish; apex of posterior femora, their tibiae and the four posterior tarsi, fuscous; mesothorax transversely rugose, middle lobe very prominent; metathorax rugulose, sub-pubescent; ovipositor as long as body, slender, reddish, sheaths black. Length 9 lines.

Hab.—London, C. W. (Saunders). Coll. Am. Ent. Soc. The white spot on the face is more or less indented with black above, and sometimes completely divided longitudinally by a black line; the posterior legs, except coxae, are sometimes more or less obfuscated, with the extreme base of their tibiae pale.

15. *ECHTHRUS NIGER*.—♀. Deep black, subopaque, mesothorax shining; tip of labrum, annulus on antennae, tegulae, and the dilated anterior tibiae in front, white; legs tinged with piceous; wings hyaline, faintly dusky at tips, nervures black; metathorax rugose, elevated on the disk; ovipositor longer than body, reddish, sheaths black, whitish at tip within. Length $7\frac{1}{2}$ lines.

♂. Smaller and very slender, shining; antennae entirely black, nearly as long as the body; lateral margin of face, tip of labrum, spot on clypeus, spot beneath eyes, tegulae, tips of anterior femora, and a line on outside of all the tibiae, white. Length 6 lines.

Hab.—Ottawa, C. W. (Billings). Coll. Am. Ent. Soc. Very closely allied to the European *E. reluctator*, but readily distinguished by the white tegulae.

16. *ECHTHRUS ABDOMINALIS*.—♀. Black, subopaque; antennae with a broad whitish annulus; wings hyaline, tinged with yellowish, nervures black, stigma reddish; palpi, legs and abdomen, rufous; tegulae reddish; ovipositor

as long as the body, reddish; metathorax as in the preceding species. Length 6 lines. ♂. Much slenderer than ♀, with lateral margin of face, scape of antennæ beneath, and tegulæ, pale; antennæ entirely black; posterior tibiae dusky, their tarsi pale; abdomen petiolated, long, thickened toward apex. Length $5\frac{1}{2}$ lines.

Hab.—Ottawa, C. W. (Billings). Coll. Am. Ent. Soc.

LUMINOUS LARVÆ.

We have received the following note from Baron Osten Sacken, of New York, on the subject of our larva:—

"A luminous larva is mentioned in your No. 4, p. 30. Is it not the larva of *Melanactes*, described and figured by me in the Pro. Ent. Society, Phil. 1862, p. 125, Tab. i. fig. 8, under the name of 'Unknown larvæ'?"

"At that time I was uncertain about the genus of the larvæ, as well as about the fact of their being luminous. But in a notice which was published in the same proceedings subsequently I communicate the fact, that I found the same larva alive, that it is luminous, and that it probably belongs to the genus *Melanactes*.

"The latter article I cannot refer to now, as I have not the book at hand. But it may be found in the Proc. Ent. Soc. Phil., in one of the years after 1862, in the form of a letter read at one of the meetings of the Society.

"R. OSTEN SACKEN."

The notice referred to we have found in the Pro. Ent. Soc. Phil., Vol. iv. No. 2, in the minutes of a meeting of the Society held on April 10, 1865 (p. 8). The Baron, after referring to his paper and figure in 1862. states that, "Last September Mr. J. Carson Brevoort was fortunate enough to find one of the large larvæ near West Point, N. Y., under a stone. The specimen is *three inches long*, and belongs to the same species as that which I had figured. In the dark, *this larva emits a soft green light*, shining principally through the sides of the body and the venter; on the back it appears only in the intervals between the horny segments. The whole length of the larva being thus illuminated in the dark, when it moves briskly about, it is a most beautiful object. The larva is still alive, although I have little hopes that it will undergo its transformation in captivity. But I have not the slightest doubt now that it belongs to *Melanactes*, the more so as this genus, in Dr. LeConte's arrangement, is placed in the same subtribe (*Corymbitini*) with *Pyrophorus*. At the time when I first described this larva, all the large specimens which I possessed came from the South (Arizona, New Mexico, Louisiana), and I was not aware that such specimens could be found in the Middle States, and as the largest *Melanactes* occurs in the latter States, this made me doubt that the larva could belong to that genus. The discovery of

the larva in the State of New York removes this doubt. Since it is settled that the larva is an elaterideous one, its structure only gains in interest. As I have shewn in my paper, it has more the character of the *Lampyridæ* than of the *Elateridæ*, and, remarkably enough, it has very little resemblance to the larva of *Pyrophorus*. The latter reproduces the common type of the *Elateridæ*, and is very like the larva of *Alaus*."

Our larva, of which we gave a description in No. 1, p. 2 (this description had probably not come under the notice of Baron Osten Sacken when he wrote to us), corresponds very closely in structure and luminosity to the *Melanactes* larva above referred to, and, we now believe, is a species of that genus. It chiefly differs from that described by Baron Osten Sacken in size, being only 1.50 in. in length, coloration, and in being less convex above. The friend who brought me the specimen states that he had frequently seen these "glow-worms" before on his farm, so I trust some more will turn up next year, and that I may have the good fortune to rear a specimen.

The larval exuvia sent us by Mr. Couper (*vide* No. 4, p. 29), is believed by Dr. LeConte to belong to *Photinus borealis*, Randall; its luminosity has not yet been ascertained.

On the 3rd of September, 1868, in the damp misty evening, we captured in a wooded valley close to a little stream, a larva whose anal segments were brilliantly and steadily luminous; a few weeks later we received a similar larva from Mr. James Angus, of West Farms, N. Y., which he found in a path on the night of the 15th of October, being attracted to it by its light; a few days after he found another of the same species under a stone, which also emitted light when kept till evening. These specimens have been determined by Dr. LeConte to belong to the common *Photuris pennsylvanica*, DeGeer; the larva and beetle are figured in the October number of the *American Naturalist*, p. 432.

We are very much obliged to our correspondents for the kind assistance they have given us in the investigation of this, to us, interesting subject.—
Ed. C. E.

LONDON BRANCH, ENTOMOLOGICAL, SOCIETY, CANADA.

MONTHLY MEETING.

The regular monthly meeting of this Branch of the society was held on Friday, October 20th, at 8 o'clock, P.M., at the residence of Mr. Charles Chapman. Six members were present. The minutes having been read and signed, the REV. R. H. STARR was duly elected a member.

Messrs. Saunders and Reed were appointed a committee to confer with the Church of England Young Men's Association, as to giving an Entomological Entertainment under the auspices of the Association.

The members expressed the great pleasure it gave them to welcome back to London their esteemed friend and former President the Rev. G. M. Innes, who has been in Quebec for the last four years.

Mr. Saunders exhibited specimens of the Tree Cricket, *Aecanthus niveus*, with examples of their destructive work on raspberry canes, and the young wood of plum trees; this insect deposits its large eggs in a row in the centre of the twig or cane, and thus weakens it so as to cause it to break off from the weight of foliage in early spring.

A copy of the first two parts of Mr. Edwards' excellent work on the Butterflies of North America was also on the table, the plates of which were much admired.

A MUSICAL LARVA.

BY E. B. REED, LONDON, ONTARIO.

On September 10, 1868, during one of our regular Monday morning excursions, I captured on a beech tree, a short distance from London, a larva which I judged to belong to the *Smerinthian* genus. Its chief peculiarity, to which I wish to call attention, was its power of emitting a singing noise when handled or disturbed. The noise was similar to that produced by that pretty little beetle so common in our gardens, *Lema trilineata*. This is the only instance of a musical larva that I have met with, nor do I remember to have ever seen any mention in entomological books of a similar case. I should be glad to know, Mr. Editor, if you, or any of your correspondents, have ever noticed this musical power in any larva? or if you can explain the manner in which the noise is produced. My specimen was full grown, and in a couple of days duly passed into the pupa stage under the earth in a flower-pot, which I duly deposited in my winter box that I keep buried in my garden, but to my great disappointment it shared the fate of most of the *Smerinthian* larvæ I have ever attempted to rear, and although it survived the winter, it failed to reach maturity. I subjoin a description of this larva, as possibly some of your correspondents may recognise it.

Length $1\frac{1}{2}$ inches. Body tapering anteriorly.

Head large, triangular; of a deep shining green color, with lateral yellow stripes, a reddish spot at the apex; a paler green and granulated on the back of the head behind the stripes. Mandibles black.

Body apple-green, thickly covered with small greenish-yellow granulations; the anterior segments semi-transparent; on each side seven faint greenish-yellow oblique stripes edged anteriorly with large granulations, the central stripes having a reddish tinge, the last stripe wider than the rest and terminating at the base of the caudal horn; the latter at an angle of 20° , recurved backwards, purplish red and thickly granulated; the anal plate with

a central elongated black patch with a larger granulation on each side. Stigmata small, round, and dull red.

Under surface slightly paler than the upper, with a darker central line.

Feet pale green, spotted with red; prolegs greenish, semi-transparent.

NOTE BY ED. C. E.—This description corresponds very nearly to that of the larva of *Smerinthus excæcatus*, by Mr. Lintner (Pro. E. S. Phil. iii. p. 665). We have never ourselves met with any Lepidopterous larva that emitted sounds; the imago of *Sesia thysbe* is described by Dr. Gibb (Can. Nat. and Geol. 1859, p. 122) as giving forth a loud and most striking note, "something like the squeaking of a mouse or a bat," which he attributes to the action of the respiratory organs. The well-known European Death's-head moth (*Acherontia atropos*) emits a somewhat similar noise, even before leaving the pupa case, as well as afterwards; Kirby & Spence state further (letter xxiv.), that "its caterpillar, if disturbed at all, draws back rapidly, making at the same time a rather loud noise, which has been compared to the crack of an electric spark."

MISCELLANEOUS NOTES.

DOUBLE BROODS.—If others take as much pleasure in reading your little Journal as I do, possibly my mite of information may be acceptable. Mr. W. Saunders has asked a question, in the concluding part of his paper, No. 2, for November, although I cannot give an answer, yet I believe I can throw a little light upon the subject. In the summer of 1865 I fed upon the potato the larva of *Macrosila celeus*, G. & R. (*Sphinx 5-maculata*), which came out of the chrysalis in August. I then made record of the fact which to our entomologists was new. The following year I also raised upon the potato *Macrosila carolina*, Clem., a pair of which came out in September. The same year I also raised from larva *Hemileuca maia*, Walk. (*Saturnia maia*, Harr.), part of the brood coming out in October, and one deformed specimen in the following May. Miss C. Guild, of Walpole, Mass., a close and careful observer and a reliable naturalist, informs me that her experience with the last named species is, that of the same brood of larvæ all going into the chrysalis nearly at the same time, part come out in October and others not until the following October, some lying in the chrysalis one year longer than others. I have been puzzled to account for their seeming irregularities, but as instances of the fact increase, conclude it is a provision of nature that our lack of knowledge only makes it strange. In Mr. B. Billings' article in the same number of your paper he enquires if *Melitea phactm* may not be double brooded. Mr. Scudder, in his list of butterflies of New England, says, "I have taken the caterpillar just ready to change, upon the barberry

in the middle of May; does the larva hibernate?" He also says, "it is very rare in Mass" (1863). I with many others had been in anxious search for this beautiful butterfly up to 1866 without success, except in the extreme southern part of the State, now all of a sudden in this year (1866) they were found in their special localities, low and swampy meadows, quite plentiful, and have continued still more plentiful (from June 17 to July 8) to the present time. Dr. Harris collected in this vicinity from about 1825, and with a few exceptions never had met with it.

It is possible that in some instances they may be double brooded, but I have never met with it out of its special season.—PHILIP S. SPRAGUE, 141 Broadway, South Boston, Mass.

OCURRENCE OF *DEILEPHILA LINEATA* IN ENGLAND.—In the September and October numbers of the *Entomologists' Monthly Magazine* (London, Eng.) there are numerous accounts of the capture of this handsome sphinx in various parts of England. Is this the same species as that taken in this country, or is it the European *D. livornica*, the *D. lineata* of Fabricius' later works, and of Stephens?

EXCHANGES.

COLEOPTERA.—I am desirous of exchanging *Coleoptera*, as I am forming a collection of North American *Coleoptera*, and wish to get every species from every part of North America in which it may be found. If you can put me in the way of any Canadian collectors who wish to exchange I should be very much obliged. I have at present a collection of about 2,000 species, mostly from New England, N. Y., Penn., D. C., and Mich.,—very few Northern or Western species, and am desirous of making arrangements to get such.—E. P. AUSTIN, Cambridge, Mass.

HYMENOPTERA.—Mr. E. T. Cresson, of Philadelphia—whose valuable paper, containing original, hitherto unpublished descriptions, of new Canadian species of this order, we print on a previous page—begs to inform the Entomologists of Canada that he will be glad to determine specimens of Canadian *Hymenoptera* for any one who will send a duplicate set, duly numbered to correspond with their cabinet specimens, to the care of JOHNSON PETTIT, Esq., Grimsby, Ont., who will forward them to him. He will describe all the new species thus received in the *Canadian Entomologist*. There is a peculiar fauna in this country of which he would like to get a good collection so as to make the species known to science.

We trust that all our Canadian readers will send on what undetermined *Hymenoptera* they have, and make a point of collecting diligently in this interesting order next year.—ED. C. E.

NEW ENTOMOLOGICAL WORKS.

THE BUTTERFLIES OF NORTH AMERICA ; with colored drawings and descriptions. By Wm. H. Edwards. Philadelphia ; The American Entomological Society. Part 2, August, 1868. Price \$2.

The second part of this magnificent work, to which we have already drawn attention, is now before us. It contains five beautifully colored plates, and descriptive letter press ; the species figured (none of which are Canadian) are *Argynnis callippe*, Boisd., taken in California ; *A. hesperis*, Edw., from Colorado ; *Colias Alexandra*, Edw., from Empire City, Colorado, "high up in the mountains, near the Snowy Range ;" *C. Helena*, Edw., from Mackenzie's River ; *C. Christina*, Edw., from Slave River ; *C. Behrii*, Edw., from among the Yo Semite Mountains, California, at an elevation of about 10,000 feet above the sea ; *Apatura Alicia*, Edw. (new species), from New Orleans.

BOOKS RECEIVED.

Proceedings of the Boston Society of Natural History. Taken from the Society's Records. Vol. xii., Oct. 7 and Nov. 4, 1868.

The Maine Farmer. Augusta, Me., Nov. 7, 14, 1868.

From Prof. Townend Glover, Washington, D. C., a series of his admirably executed plates on the cotton plant and the insects injuring it, and on *Diptera*, &c., in all forty-three plates. A valuable addition to the, at present, small library of the Society ; and for which we beg the author to accept our best thanks.

TO CORRESPONDENTS.

REV. L. P., Port Neuf, P. Q.—The following are all of your Coleoptera that we are able to determine as yet ; we shall endeavour to have the rest named for you shortly. (3) *Orytelus sculptus*, Grav. (5) *Hylastes pinifex*, Fitch. (6) *Hylastes*? (7) *Dinoderus substriatus*, Payk. (9) *Tacyporus jocosus*, Say. (10) *Dibolia aerea*, Mels. (11) *Paria 4-notata*, Say. (12) *Haltica*? (14) *Pterostichus lucublandus*, Say. (15) we take to be an *Amara* not a *Pterostichus* ; the species of this genus are very difficult to determine ; your specimen differs from all in our cabinet.

V. S. C., Covington, Ky.—Your letter was received after our article on "Luminous Larvæ" was in type. The specimen enclosed which, you say, when taken last June, was luminous, and had power to put out its fire at will, is the larva, we think, of a *Photuris*, but different from any that we have. Your common fire-fly is, you state, *Photinus centrata*, Say. ; it is not taken in Canada, our commonest phosphorescent species being *Photuris pennsylvanica*, DeGeer. Stainton's "Manual," vol. ii. (London, Van Voorst, 1859, price 10s.), contains a synopsis of the genera and species of *British* Micro-Lepidoptera ; his "Entomolo-

gist's Companion" (Van Voorst, 3s.), is a manual on the *Tineina*; the most complete work is his "Natural History of the *Tineina*" (Van Voorst, 12s. 6d. each vol.), which is published in annual volumes since 1856. *American* species and genera are described by Dr. Clemens in the *Pro. Acad. Nat. Sci. Phil.* 1859, pp. 256 and 317; 1860, pp. 4, 161, 203, 345, and 433; and also in the *Pro. Ent. Soc. Phil.* We do not know of any work on the *Micro-Homoptera*. We can supply you with the Cork you require, but how shall we send it? The charges by express would be more than double its value for so small a quantity; by Post it would have to go at letter rates, as there is no *Parcels Post* between the two countries.

SUBSCRIPTIONS to vol. i. have been received from the following:—E. P. A., Cambridge, Mass.; H. F. B., Waterbury, Conn.; Miss E. R. C., Amherstburg, Ont. (per Mr. Reed), and Dr. A. S. P., jun., Salem, Mass. (2 copies, for the library of Bowdoin Coll., Brunswick, Me., and the Portland Soc. Nat. History).

LETTERS RECEIVED.—E. T. C., Philad. (3. Many thanks); Prof. T. G., Washington, D. C.; Dr. J. L. LeC., Philada.; S. H. S., Boston, Mass.; Dr. G. H. H., Philada.; B. D. W., Rock Island, Ill.; T. R., Montreal (with P. O. O.); J. A., West Farms, N. Y. (the box has not yet arrived, but we have caused the express agents to make enquiries respecting it).

SHEET CORK.—We have now on hand a large supply of sheet cork, imported from the English manufacturer. Ordinary thickness for cabinets, 16 cents per square foot; extra thick for travelling boxes, 24 cents do. The former can be sent to any place in Canada by *parcels post* at the rate of 12½ cents per 6 feet; the latter 12½ cents per 5 feet.

THE CANADIAN ENTOMOLOGIST is published on the 15th of each month by the Entomological Society of Canada. In consequence of the new Postal Law, which requires pre-payment of all Periodicals after January 1, 1869, we are constrained to make a slight change in the rates of subscription, as follows:—

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N.B.—Correspondence is invited respecting the habits, localities, occurrence, &c., of insects, as this journal is intended to be a medium for the recording of observations made in all parts of the country; insects for identification will be gladly attended to and returned when desired. Any contributions to the publication fund will be thankfully received and gratefully acknowledged.

All communications, remittances and exchanges, should be addressed to "THE REV. C. J. S. BETHUNE, *Credit, Ont., Canada.*"

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